=> d 18 bib abs 1-8

DRWN

```
ANSWER 1 OF 8 USPATFULL on STN
L8
       2003:297111 USPATFULL
AN
TI
       Conductive structures
TN
       Lussey, David, Richmond, UNITED KINGDOM
PΑ
       Peratech Limited, Darlington, UNITED KINGDOM (non-U.S. corporation)
PΙ
       US 6646540
                           B1
                                20031111
       WO 2000079546 20001228
       US 2001-18400
ΑI
                                20011219 (10)
       WO 2000-GB2402
                                20000621
       GB 1999-14399
PRAI
                           19990622
       GB 1999-15296
                           19990701
       GB 1999-18837
                           19990810
       GB 2000-2912
                           20000210
DT
       Utility
       GRANTED
FS
EXNAM Primary Examiner: Easthom, Karl D.
LREP
       Larson & Taylor, PLC
CLMN
       Number of Claims: 28
ECL
       Exemplary Claim: 1
DRWN
       8 Drawing Figure(s); 3 Drawing Page(s)
LN.CNT 748
AB
       A conductive structure is used in electric variable resistance devices
       to provide changes in electrical resistance with movement and changes in
       pressure, the variable resistance device comprising externally
       connectable electrodes (10) bridged by an element (14) containing
       polymer and particles of metal, alloy or reduced metal oxide, said
       element (14) having a first level of conductance when quiescent and
       being convertible to a second level of conductance by change of stress
       applied by stretching or compression or electric field, the device
       further comprising by means (18) to stress the element (14) over a
       cross-sectional area proportional to the level of conductance required.
     ANSWER 2 OF 8 USPATFULL on STN
L8
       2003:268469 USPATFULL
AN
ΤI
       Head interconnect with support material carbonized shunt
TN
       Girard, Mark T., South Haven, MN, United States
       Jurgenson, Ryan A., Hutchinson, MN, United States
PΑ
       Applied Kinetics, Inc., Hutchinson, MN, United States (U.S. corporation)
PΙ
       US 6631052
                          В1
                               20031007
ΑI
       US 1999-372283
                               19990811 (9)
       Continuation-in-part of Ser. No. US 1999-274367, filed on 23 Mar 1999
RLI
       Continuation-in-part of Ser. No. US 1999-273661, filed on 23 Mar 1999
PRAI
       US 1999-115754P
                          19990113 (60)
DT
       Utility
FS
       GRANTED
      Primary Examiner: Renner, Craig A.
EXNAM
LREP
       Kagan Binder, PLLC
CLMN
       Number of Claims: 5
ECL
       Exemplary Claim: 1
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LN.CNT 1293 The present invention provides a method for the creation and removal of shunts for the prevention of ESD/EOS damage to electrical components. In one embodiment of the present invention, the conductive pathway is provided and removed by exposing the interconnect's carbonizable and ablatable substrate to a radiant energy source such as a laser beam. The present invention also provides for interconnects that include at least two conductive wires or leads engaged on at least one surface by a carbonizable and ablatable material. The conductive wires may each include a branched dead end lead portion interleaved with the branched

35 Drawing Figure(s); 28 Drawing Page(s)

dead end lead portion of the other. Alternatively, the conductive wires may extend in close proximity to each other in a curved or sinuous or serpentine or backtracking pattern. An interconnect in accord with the present invention may include a substrate substantially supporting the conductive wires except at predetermined locations or proposed shunt sites wherein there is at least one through hole in the substrate.

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ANSWER 3 OF 8 USPATFULL on STN
L8
       2003:146139 USPATFULL
AN
       Battery structures, self-organizing structures and related methods
ΤI
       Chiang, Yet Ming, Framingham, MA, UNITED STATES
IN
       Moorehead, William Douglas, Virginia Beach, VA, UNITED STATES
       Gozdz, Antoni S., Marlborough, MA, UNITED STATES
       Holman, Richard K., Belmont, MA, UNITED STATES
       Loxley, Andrew, Somerville, MA, UNITED STATES
       Riley, Gilbert N., JR., Marlborough, MA, UNITED STATES
       Viola, Michael S., Burlington, MA, UNITED STATES
\Delta
       A123SYSTEMS, INC. (U.S. corporation)
PТ
       US 2003099884
                          A1
                               20030529
ΔΤ
       US 2002-206662
                         A1
                               20020726 (10)
       Continuation-in-part of Ser. No. US 2001-21740, filed on 22 Oct 2001,
RLT
       PENDING
PRAI
       US 2001-308360P
                           20010727 (60)
DT
       Utility
FS
       APPLICATION
LREP
       HALE AND DORR, LLP, 60 STATE STREET, BOSTON, MA, 02109
CLMN
       Number of Claims: 108
ECL
       Exemplary Claim: 1
DRWN
       32 Drawing Page(s)
LN.CNT 4122
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB
       An energy storage device includes a first electrode comprising a first
       material and a second electrode comprising a second material, at least a
       portion of the first and second materials forming an interpenetrating
       network when dispersed in an electrolyte, the electrolyte, the first
       material and the second material are selected so that the first and
       second materials exert a repelling force on each other when combined. An
       electrochemical device, includes a first electrode in electrical
       communication with a first current collector; a second electrode in
       electrical communication with a second current collector; and an
       ionically conductive medium in ionic contact with said first and second
       electrodes, wherein at least a portion of the first and second
       electrodes form an interpenetrating network and wherein at least one of
       the first and second electrodes comprises an electrode structure
       providing two or more pathways to its current collector.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L<sub>8</sub>
     ANSWER 4 OF 8 USPATFULL on STN
AN
       2002:249025 USPATFULL
TΙ
       DOPED, ORGANIC CARBON-CONTAINING SENSOR FOR INFRARED DETECTION
       AND A PROCESS FOR THE PREPARATION THEREOF
TN
       Giedd, Ryan E., Springfield, MO, UNITED STATES
       US 2002134939
PΙ
                       A1
                               20020926
       US 6489616
                          B2
                               20021203
                         A1
AΙ
       US 2001-811908
                               20010319 (9)
DT
       Utility
```

SENNIGER POWERS LEAVITT AND ROEDEL, ONE METROPOLITAN SQUARE, 16TH FLOOR,

CLMN Number of Claims: 84
ECL Exemplary Claim: 1
DRWN 8 Drawing Page(s)

ST LOUIS, MO, 63102

APPLICATION

FS

LREP

LN.CNT 1648

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

The present invention is directed to an uncooled, infrared detector which includes a **sensor** having an amorphous surface layer containing organic carbon and a high dopant concentration which possesses an improved temperature coefficient of resistivity, as well as improved responsivity, and which may be patterned to form a focal plane array by means of common microlithographic techniques. The present invention is additionally directed to an "ion beam mixing" process for preparing the present infrared **sensor**.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ANSWER 5 OF 8 USPATFULL on STN L82002:189559 USPATFULL ANElectrical component and a shuntable/shunted electrical component and TImethod for shunting and deshunting Girard, Mark T., South Haven, MN, UNITED STATES ΙN Jurgenson, Ryan A., Hutchinson, MN, UNITED STATES US 2002100607 PΤ A1 20020801 US 2002-73641 ΑI Α1 20020211 (10) Continuation of Ser. No. US 1999-274367, filed on 23 Mar 1999, ABANDONED RLI PRAI US 1999-115754P 19990113 (60) DТ Utility APPLICATION FS KAGAN BINDER, PLLC, Intellectual Property Attorneys, Maple Island LREP Building, Suite 200, 221 Main Street North, Stillwater, MN, 55082 CLMN Number of Claims: 29 ECL Exemplary Claim: 1 20 Drawing Page(s) DRWN LN.CNT 1009

The present invention provides an interconnect useful for the prevention of ESD/EOS damage to electrical components. The present invention provides for interconnects that include at least two conductive wires or leads engaged on at least one surface by a carbonizable and ablatable material. The conductive wires may each include a branched dead end lead portion interleaved with the branched dead end lead portion of the other. Alternatively, the conductive wires may extend in close proximity to each other in a curved or sinuous or serpentine or backtracking pattern. An interconnect in accord with the present invention may include a substrate substantially supporting the conductive wires except at predetermined locations or proposed stint sites wherein there is at least one through hole in the substrate.

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L8
     ANSWER 6 OF 8 USPATFULL on STN
       2001:215148 USPATFULL
AN
TТ
       Conducting polymer transition metal hybrid materials
       and sensors
TN
       Swager, Timothy M., Newton, MA, United States
       Kingsborough, Richard, Somerville, MA, United States
       Zhu, Shitong S., Somerville, MA, United States
PA
       Massachusetts Institute of Technology, Cambridge, MA, United States
       (U.S. corporation)
PΙ
       US 6323309
                         B1
                               20011127
       US 1998-201743
AΙ
                               19981201 (9)
PRAI
       US 1997-67200P
                          19971201 (60)
       Utility
DT
FS
       GRANTED
EXNAM Primary Examiner: Short, Patricia A.
       Wolf, Greenfield & Sacks, P.C.
LREP
       Number of Claims: 17
CLMN
       Exemplary Claim: 1
ECL
DRWN
       23 Drawing Figure(s); 15 Drawing Page(s)
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LN.CNT 1565
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Conductive properties are optimized in conducting polymers, made up of organic units and metal ions, by tailoring the position of metal ions with respect to conductive pathways or by selecting components such that the redox potential of organic units and metal ions differs by no more than 250 mV. Very small devices, and articles in which a high percentage of metal ions are redox active, are provided. Articles that can serve as sensors include metal ions with at least one free reactive site that can accommodate an analyte for conductivity change detection.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

are provided.

ANSWER 7 OF 8 USPATFULL on STN $\mathbf{L8}$ 2000:153447 USPATFULL ANMethod and shunting and deshunting an electrical component and a TIshuntable/shunted electrical component Girard, Mark T., South Haven, MN, United States IN Jurgenson, Ryan A., Hutchinson, MN, United States PΑ Applied Kinetics Inc., Hutchinson, MN, United States (U.S. corporation) US 6146813 PI20001114 US 1999-273661 19990323 (9) ΑI US 1999-115754P 19990113 (60) PRAI DT Utility FS Granted Primary Examiner: McPherson, John A. EXNAM Briggs and Morgan, Gregersen, Craiq LREP Number of Claims: 65 CLMN ECL Exemplary Claim: 1 DRWN 27 Drawing Figure(s); 20 Drawing Page(s) LN.CNT 1114 The present invention provides a method for the creation and removal of AB

Chemoresistive devices, field effect transistors, and signal amplifiers

The present invention provides a method for the creation and removal of shunts for the prevention of ESD/EOS damage to electrical components. In one embodiment of the present invention, the conductive pathway is provided and removed by exposing the interconnect's carbonizable and ablatable substrate to a radiant energy source such as a laser beam. The present invention also provides for interconnects that include at least two conductive wires or leads engaged on at least one surface by a carbonizable and ablatable material. The conductive wires may each include a branched dead end lead portion interleaved with the branched dead end lead portion of the other. Alternatively, the conductive wires may extend in close proximity to each other in a curved or sinuous or serpentine or backtracking pattern. An interconnect in accord with the present invention may include a substrate substantially supporting the conductive wires except at predetermined locations or proposed shunt sites wherein there is at least one through hole in the substrate.

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ANSWER 8 OF 8 USPATFULL on STN
L8
ΑN
       89:49761 USPATFULL
TI
       Electrically insulating polymer matrix with
       conductive path formed in situ
       Epstein, Arthur J., Bexley, OH, United States
ΙN
       Ewing, Joan R., Fairport, NY, United States
       Swift, Joseph A., Ontario, NY, United States
PΑ
       Xerox Corporation, Stamford, CT, United States (U.S. corporation)
PΙ
       US 4841099
                               19890620
       US 1988-188984
AΤ
                               19880502 (7)
DT
       Utility
FS
       Granted
       Primary Examiner: Nimmo, Morris H.
EXNAM
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CLMN Number of Claims: 44 ECL Exemplary Claim: 1,15,31

DRWN 7 Drawing Figure(s); 4 Drawing Page(s)

LN.CNT 790

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB An electrical component is made from an electrically insulating polymer matrix filled with electrically insulating fibrous filler which is capable of heat conversion to electrically conducting fibrous filler and has at least one continuous electrically conductive path formed in the matrix by the in situ heat conversion of the electrically insulating fibrous filler. In a preferred embodiment, the fibrous filler is thermally stabilized polyacrylonitrile fibers and the conductive path is formed by in situ heat converted thermally stabilized polyacrylonitrile fibers which have been converted by directing a laser beam through a mask having a predetermined pattern to melt the polymer and to heat convert the thermally stabilized polyacrylonitrile fibers.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> d his

(FILE 'HOME' ENTERED AT 14:18:47 ON 24 JUN 2004)

FILE 'BIOSIS, MEDLINE, CAPLUS, WPIDS, USPATFULL' ENTERED AT 14:19:13 ON 24 JUN 2004

L194233 S CONDUCT? (4A) POLYMER? L2

6428 S L1 AND SENSOR

702 S L2 AND ORGANIC POLYMER?

12 S L3 AND CONDUCTIVE PATHWAYS

12 S L4 AND INSULAT?

12 DUP REM L5 (0 DUPLICATES REMOVED)

2 S L6 AND SWITCH

L88 S L6 AND CONDUCTIVITY

=>

L3

L4

L5L6

L7